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June 2, 2003

Mr. Arthur V. Bourlard The Lockformer Company 711 Ogden Avenue Lisle, Illinois 60532



Subject:

Thermal Remediation Services Response to Electrical Inspection at The Lockformer Company, 711 Ogden Ave., Lisle, IL 60532-1399

Dear Mr. Bourlard:

The purpose of this letter is to respond to the Electrical Inspection of the ERH Equipment for the Lockformer Removal Action letter of May 30, 2003 from Mr. Steven J. Faryan of U.S. EPA. I would also like to introduce myself and provide you with some of my technical background so that you have a better understanding of my abilities.

I was originally trained by the U.S. Navy as a Nuclear Electrician, serving 8 years in the field, including nearly 3 years as an instructor. Since leaving the service, I have worked nearly 15 years in the environmental industry, with a large portion of that time spent working on electrical distribution systems for remediation systems. I have extensive experience in power delivery and control systems using Vapor Recovery Blowers, Steam Condensers, various Oxidizers, and miscellaneous pumps and motors. I have obtained electrical contractor's licenses in both California and Oregon, and have performed and/or supervised the electrical installation of more than 50 remediation systems.

Since 1997, I have worked with the application of the ERH technology all over the United States. I have performed and supervised the design, installation and operation of ERH systems of eighteen (18) different projects, not including The Lockformer Project. Those projects were completed across the nation and have included six (6) other sites in the Chicago area. They also were performed for various commercial clients as well as the Department of Energy, the Department of Defense, and the U.S. EPA.

Mr. Faryan has raised a number of concerns in his letter that I would like to address:

- 1. Electrical cables have been spliced and taped.
 - a. The cables in question have been repaired by removing the taped section and replacing it with the appropriately rated heat-shrink tubing.
- 2. Upgrading the wiring at the cooling tower, the VR Blower, and ancillary equipment so that they are run in conduit or overhead.
 - a. The flexible cord used to deliver power and control loops to and from the auxiliary equipment is used in accordance with the National Electrical Code. All of the cord used is rated as being for "hard or extra-hard usage" and is rated for

- use in wet locations. Where these cables cross-likely areas of foot traffic, a "step" will be constructed over, the cables to minimize undo wear and tear.
- b. In addition, it is Thermal's policy to complete a visual inspection of all portable cables, both between equipment components and to the electrodes themselves, at least once per month. Generally, this task is completed by Thermal personnel during every site visit.
- 3. Sealing the top cap of the electrodes, where the cable enters the plastic over sleeve.
 - a. Thermal agrees that the holes in the cap should not permit access to energized components; however, we do not wish to fully seal the holes in the caps. These holes actually serve two purposes: 1) to permit connection of the power delivery cable and 2) to permit heat to escape from within the over sleeve. During operation, the electrodes will become very hot. If this heat is not permitted to dissipate out the holes, the cap and over sleeve may become soft and may not provide the level of protection desired. Per our discussion with Mr. Jerry Marchione of Marchione Electric, Thermal will install a rubber "gasket" around the cables to eliminate the ability of personnel to gain access to energized parts within the electrode heads, however a "breathing" space will be left to permit the heat to escape.

We at Thermal are committed to completing this project in a safe and efficient manner and look forward to working with you to achieve a rapid and mutually satisfactory conclusion to this issue. Please call me at (714) 378-5418 if you have any questions or comments on this letter.

Sincerely,

Thermal Remediation Services

Mr. Jerry Wolf

Vice President - Operations